



```

FFFFFFFFF  000000  RRRRRRR  WW      WW  RRRRRRR  IIIII  TTTTTTTTT  IIIII  LL
FFFFFFFFF  000000  RRRRRRR  WW      WW  RRRRRRR  IIIII  TTTTTTTTT  IIIII  LL
FF         00      00  RR      RR  WW      WW  RR      RR  II      TT      II      LL
FF         00      00  RR      RR  WW      WW  RR      RR  II      TT      II      LL
FF         00      00  RR      RR  WW      WW  RR      RR  II      TT      II      LL
FFFFFFFFF  00      00  RRRRRRR  WW      WW  RRRRRRR  II      TT      II      LL
FFFFFFFFF  00      00  RRRRRRR  WW      WW  RRRRRRR  II      TT      II      LL
FF         00      00  RR  RR    WW  WW    WW  RR  RR    RR  II      TT      II      LL
FF         00      00  RR  RR    WW  WW    WW  RR  RR    RR  II      TT      II      LL
FF         00      00  RR      RR  WWW  WWW  RR      RR  II      TT      II      LL
FF         00      00  RR      RR  WWW  WWW  RR      RR  II      TT      II      LL
FF         00      00  RR      RR  WW      WW  RR      RR  IIIII  TT      IIIII  LL
FF         000000  RR      RR  WW      WW  RR      RR  IIIII  TT      IIIII  LL
FF         000000  RR      RR  WW      WW  RR      RR  IIIII  TT      IIIII  LL
LL          IIIII  SSSSSSS
LL          IIIII  SSSSSSS
LL          II     SS
LL          II     SS
LL          II     SS
LL          II     SS
LL          II     SSSSS
LL          II     SSSSS
LL          II     SS
LL          II     SS
LL          II     SS
LL          II     SS
LLLLLLLLLL IIIII  SSSSSSS
LLLLLLLLLL IIIII  SSSSSSS

```

(2) 58  
(3) 102

DECLARATIONS  
FORSWRITE\_IL - WRITE internal list-directed



```
0000 1      .TITLE FOR$WRITE_IL - FORTRAN WRITE internal list-directed
0000 2      .IDENT /1-001/      File: FORWRITEIF.MAR Edit: SBL1001
0000 3
0000 4      *****
0000 5      *
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0000 22     *  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
0000 23     *
0000 24     *
0000 25     *****
0000 26
0000 27
0000 28     ++
0000 29     FACILITY: FORTRAN Support Library - user callable
0000 30
0000 31     ABSTRACT:
0000 32
0000 33     This module contains the entry point for the FORTRAN
0000 34     WRITE internal list-directed I/O statement. It is simply
0000 35     a call to FOR$$IO_BEG with bits in R0 which describe the
0000 36     parameter list. FOR$$IO_BEG interprets the parameters.
0000 37
0000 38     MAINTENANCE NOTE:
0000 39     The transfer vector (RTLVECTOR+ALLGBL) must have the following:
0000 40
0000 41     .TRANSFER      FOR$WRITE_IL
0000 42     .MASK          FOR$$IO_BEG
0000 43     JMP            FOR$WRITE_IL+2
0000 44
0000 45     This puts the correct mask in entry vector, that is FOR$$IO_BEG entry mask.
0000 46     Furthermore this module must only use R0 and R1
0000 47     since any other register might not be in the entry mask for FOR$$IO_BEG.
0000 48
0000 49     ENVIRONMENT: User access mode; mixture of AST level or not
0000 50
0000 51     AUTHOR: Steven B. Lionel, CREATION DATE: 21-April-1983
0000 52
0000 53
0000 54     Edit History:
0000 55
0000 56     1-001 - Original. SBL 21-April-1983
```

```
0000 58      .SBTTL  DECLARATIONS
0000 59
0000 60 :
0000 61 : INCLUDE FILES:
0000 62 :
0000 63
0000 64      $FORPAR      ; Define inter-module FORTRAN symbols
0000 65      $ISBDEF      ; Define statement type symbols
0000 66
0000 67 :
0000 68 : EXTERNAL SYMBOLS:
0000 69 :
0000 70
0000 71      .DSABL  GBL      ; Declare all external symbols
0000 72      .EXTRN  FOR$$IO_BEG      ; common I/O statement processing
0000 73 :+
0000 74 : The following references are to make sure the necessary UDF and REC
0000 75 : modules are loaded. These are the routines which are called through
0000 76 : the dispatch tables in FOR$$DISPAT.
0000 77 :-
0000 78      .EXTRN  FOR$$UDF_WL0, FOR$$UDF_WL1, FOR$$UDF_WL9
0000 79      .EXTRN  FOR$$REC_WIL0, FOR$$REC_WIL1, FOR$$REC_WIL9
0000 80
0000 81 :
0000 82 : MACROS:
0000 83 :
0000 84 :      NONE
0000 85 :
0000 86 : PSECT DECLARATIONS:
0000 87 :
0000 88
00000000 89      .PSECT  _FOR$CODE PIC,USR,CON,REL,LCL,SHR,EXE,RD,NOWRT,LONG
0000 90
0000 91 :
0000 92 : EQUATED SYMBOLS:
0000 93 :
0000 94 :
0000 95 :
0000 96 :
0000 97 : OWN STORAGE:
0000 98 :
0000 99 :      NONE
0000 100 :
```

```
0000 102 .SBTTL FOR$WRITE_IL - WRITE internal list-directed
0000 103
0000 104 :++
0000 105 : FUNCTIONAL DESCRIPTION:
0000 106 :
0000 107 : Initialize the FORTRAN I/O system to perform
0000 108 : a WRITE internal list-directed I/O statement.
0000 109 :
0000 110 : CALLING SEQUENCE:
0000 111 :
0000 112 : CALL FOR$WRITE_IL (user_vbl.rt.dx [, err_adr.j.r [, end_adr.j.r]])
0000 113 :
0000 114 : INPUT PARAMETERS:
0000 115 :
0000 116 : user_vbl.rt.dx User's string variable
0000 117 : [err_adr.j.r] optional ERR= address
0000 118 : [end_adr.j.r] optional END= address
0000 119 :
0000 120 : IMPLICIT INPUTS:
0000 121 :
0000 122 : NONE except those used by FOR$$IO_BEG.
0000 123 :
0000 124 : OUTPUT PARAMETERS:
0000 125 :
0000 126 : NONE
0000 127 :
0000 128 : IMPLICIT OUTPUTS:
0000 129 :
0000 130 : NONE except those left by FOR$$IO_BEG.
0000 131 :
0000 132 : COMPLETION CODES:
0000 133 :
0000 134 : NONE
0000 135 :
0000 136 : SIDE EFFECTS:
0000 137 :
0000 138 : NONE except those of FOR$$IO_BEG.
0000 139 :
0000 140 :--
0000 141 :
0000 142 FOR$WRITE_IL:: .MASK FOR$$IO_BEG
50 15 0000' 0002 143 MOVZBL #ISB$K ST_TY WIC, R0 ; Statement type
00000002'GF 17 0005 144 JMP G^FOR$$IO_BEG+2 ; branch past call mask
000B 145
000B 146
000B 147 .END
```



FOR\$WRITE\_IL  
Symbol table

J 8  
- FORTRAN WRITE internal list-directed

16-SEP-1984 00:05:04  
6-SEP-1984 11:02:01

VAX/VMS Macro V04-00  
[FORRTL.SRC]FORWRITIL.MAR;1

Page 4  
(3)

FOR\$\$IO\_BEG  
FOR\$\$REC\_WILO  
FOR\$\$REC\_WIL1  
FOR\$\$REC\_WIL9  
FOR\$\$UDF\_WLO  
FOR\$\$UDF\_WL1  
FOR\$\$UDF\_WL9  
FOR\$WRITE\_IL  
ISB&K\_ST\_TY\_WIL

\*\*\*\*\* X 00  
\*\*\*\*\* X 00  
\*\*\*\*\* X 00  
\*\*\*\*\* X 00  
\*\*\*\*\* X 00  
\*\*\*\*\* X 00  
\*\*\*\*\* X 00  
00000000 RG 01  
= 00000015

-----  
! Psect synopsis !  
-----

PSECT name

Allocation

PSECT No.

Attributes

ABS  
\_FOR\$CODE  
00000000 ( 0.) 00 ( 0.) NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE  
0000000B ( 11.) 01 ( 1.) PIC USR CON REL LCL SHR EXE RD NOWRT NOVEC LONG

-----  
! Performance indicators !  
-----

Phase	Page faults	CPU Time	Elapsed Time
Initialization	29	00:00:00.09	00:00:01.09
Command processing	132	00:00:00.65	00:00:04.36
Pass 1	126	00:00:01.21	00:00:04.87
Symbol table sort	0	00:00:00.19	00:00:00.39
Pass 2	39	00:00:00.42	00:00:01.79
Symbol table output	2	00:00:00.03	00:00:00.32
Psect synopsis output	3	00:00:00.01	00:00:00.09
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	333	00:00:02.60	00:00:13.03

The working set limit was 1050 pages.

6398 bytes (13 pages) of virtual memory were used to buffer the intermediate code.

There were 20 pages of symbol table space allocated to hold 187 non-local and 0 local symbols.

147 source lines were read in Pass 1, producing 8 object records in Pass 2.

9 pages of virtual memory were used to define 2 macros.

-----  
! Macro library statistics !  
-----

Macro library name

Macros defined

-----  
\$255\$DUA28:[FORRTL.OBJ]FORRTL.MLB;1 2  
\$255\$DUA28:[SYSLIB]STARLET.MLB;2 0  
TOTALS (all libraries) 2

183 GETS were required to define 2 macros.

There were no errors, warnings or information messages.

MACRO/ENABLE=SUPPRESSION/DISABLE=(GLOBAL,TRACEBACK)/LIS=LIS\$:FORWRITIL/OBJ=OBJ\$:FORWRITIL MSRC\$:FORWRITIL/UPDATE=(ENH\$:FORWRITIL)+LI



0185 AH-BT13A-SE  
VAX/VMS V4.0

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